

- (a) growing a culture of the host cell of claim 3 in a suitable culture medium;
and
(b) purifying said protein from the culture.

5 6. A protein produced according to the process of claim 5.

7. The protein of claim 6 comprising a mature protein.

8. A protein comprising an amino acid sequence selected from the group
10 consisting of:

- (a) the amino acid sequence of SEQ ID NO:2;
(b) fragments of the amino acid sequence of SEQ ID NO:2 comprising the amino acid sequence from amino acid 19 to amino acid 28 of SEQ ID NO:2; and
(c) the amino acid sequence encoded by the cDNA insert of clone bd164_7
15 deposited under accession number ATCC 98364;
the protein being substantially free from other mammalian proteins.

9. The protein of claim 8, wherein said protein comprises the amino acid sequence of SEQ ID NO:2.

10. A composition comprising the protein of claim 8 and a pharmaceutically acceptable carrier.

11. A method for preventing, treating or ameliorating a medical condition
25 which comprises administering to a mammalian subject a therapeutically effective amount of a composition of claim 10.

12. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:1.

13. An isolated polynucleotide selected from the group consisting of:

- (a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:3; 1063 Nucle
(b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:3 from nucleotide 202 to nucleotide 849;
(c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:3
35 from nucleotide 511 to nucleotide 849;
(d) a polynucleotide comprising the nucleotide sequence of the full-length protein coding sequence of clone bi129_2 deposited under accession number ATCC 98364;

- (e) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone bi129_2 deposited under accession number ATCC 98364;
- (f) a polynucleotide comprising the nucleotide sequence of a mature protein coding sequence of clone bi129_2 deposited under accession number ATCC 98364;
- 5 (g) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone bi129_2 deposited under accession number ATCC 98364;
- (h) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:4;
- (i) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:4 having biological activity, the fragment comprising the amino acid sequence from amino acid 103 to amino acid 112 of SEQ ID NO:4;
- 10 (j) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(g) above;
- (k) a polynucleotide which encodes a species homologue of the protein of (h) or (i) above; and
- 15 (l) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(i).

- ✓ 14. A protein comprising an amino acid sequence selected from the group consisting of:
- 20 (a) the amino acid sequence of SEQ ID NO:4;
- (b) the amino acid sequence of SEQ ID NO:4 from amino acid 88 to amino acid 209;
- (c) fragments of the amino acid sequence of SEQ ID NO:4 comprising the amino acid sequence from amino acid 103 to amino acid 112 of SEQ ID NO:4; and
- 25 (d) the amino acid sequence encoded by the cDNA insert of clone bi129_2 deposited under accession number ATCC 98364;
- the protein being substantially free from other mammalian proteins.

- 111 30 15. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:3.

- ✓ 16. An isolated polynucleotide selected from the group consisting of:
- (a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:8; → 1131 nucl.
- (b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:8
- 35 from nucleotide 156 to nucleotide 902;
- (c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:8 from nucleotide 225 to nucleotide 902;

(b) the amino acid sequence of SEQ ID NO:21 from amino acid 1 to amino acid 65;

(c) fragments of the amino acid sequence of SEQ ID NO:21 comprising the amino acid sequence from amino acid 42 to amino acid 51 of SEQ ID NO:21; and

5 (d) the amino acid sequence encoded by the cDNA insert of clone fe366_1 deposited under accession number ATCC 98364; the protein being substantially free from other mammalian proteins.

10 36. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:20.

37. An isolated polynucleotide selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:33;

(b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:33 from nucleotide 707 to nucleotide 1783;

15 (c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:33 from nucleotide 368 to nucleotide 838;

(d) a polynucleotide comprising the nucleotide sequence of the full-length protein coding sequence of clone bp783_3 deposited under accession number ATCC 98369;

20 (e) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone bp783_3 deposited under accession number ATCC 98369;

(f) a polynucleotide comprising the nucleotide sequence of a mature protein coding sequence of clone bp783_3 deposited under accession number ATCC 98369;

25 (g) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone bp783_3 deposited under accession number ATCC 98369;

(h) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:34;

30 (i) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:34 having biological activity, the fragment comprising the amino acid sequence from amino acid 174 to amino acid 183 of SEQ ID NO:34;

(j) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(g) above;

(k) a polynucleotide which encodes a species homologue of the protein of (h) or (i) above; and

35 (l) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(i).

38. The polynucleotide of claim 37 wherein said polynucleotide is operably linked to at least one expression control sequence.

39. A host cell transformed with the polynucleotide of claim 38.

40. The host cell of claim 39, wherein said cell is a mammalian cell.

41. A process for producing a protein encoded by the polynucleotide of claim 38, which process comprises:

- (a) growing a culture of the host cell of claim 39 in a suitable culture medium; and
- (b) purifying said protein from the culture.

42. A protein produced according to the process of claim 41.

43. The protein of claim 42 comprising a mature protein.

44. A protein comprising an amino acid sequence selected from the group consisting of:

- (a) the amino acid sequence of SEQ ID NO:34;
 - (b) the amino acid sequence of SEQ ID NO:34 from amino acid 1 to amino acid 44;
 - (c) fragments of the amino acid sequence of SEQ ID NO:34 comprising the amino acid sequence from amino acid 174 to amino acid 183 of SEQ ID NO:34; and
 - (d) the amino acid sequence encoded by the cDNA insert of clone bp783_3 deposited under accession number ATCC 98369;
- the protein being substantially free from other mammalian proteins.

45. The protein of claim 44, wherein said protein comprises the amino acid sequence of SEQ ID NO:34.

46. The protein of claim 44, wherein said protein comprises the amino acid sequence of SEQ ID NO:34 from amino acid 1 to amino acid 44.

47. A composition comprising the protein of claim 44 and a pharmaceutically acceptable carrier.

101. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:73 and SEQ ID NO:75.

5 102. An isolated polynucleotide selected from the group consisting of:

- (a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:76;
- (b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:76 from nucleotide 67 to nucleotide 879;
- 10 (c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:76 from nucleotide 118 to nucleotide 879;
- (d) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:76 from nucleotide 1224 to nucleotide 2171;
- (e) a polynucleotide comprising the nucleotide sequence of the full-length
- 15 protein coding sequence of clone fh3_6 deposited under accession number ATCC 98371;
- (f) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone fh3_6 deposited under accession number ATCC 98371;
- (g) a polynucleotide comprising the nucleotide sequence of a mature protein
- 20 coding sequence of clone fh3_6 deposited under accession number ATCC 98371;
- (h) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone fh3_6 deposited under accession number ATCC 98371;
- (i) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:77;
- 25 (j) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:77 having biological activity, the fragment comprising the amino acid sequence from amino acid 130 to amino acid 139 of SEQ ID NO:77;
- (k) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(h) above;
- 30 (l) a polynucleotide which encodes a species homologue of the protein of (i) or (j) above ; and
- (m) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(j).

35 103. A protein comprising an amino acid sequence selected from the group consisting of:

- (a) the amino acid sequence of SEQ ID NO:77;

(b) the amino acid sequence of SEQ ID NO:77 from amino acid 1 to amino acid 119;

(c) fragments of the amino acid sequence of SEQ ID NO:77 comprising the amino acid sequence from amino acid 130 to amino acid 139 of SEQ ID NO:77; and

5 (d) the amino acid sequence encoded by the cDNA insert of clone fh3_6 deposited under accession number ATCC 98371;

the protein being substantially free from other mammalian proteins.

10 104. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:76.

105. An isolated polynucleotide selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:78;

15 (b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:78 from nucleotide 2 to nucleotide 556;

(c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:78 from nucleotide 53 to nucleotide 556;

(d) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:78 from nucleotide 1 to nucleotide 367;

20 (e) a polynucleotide comprising the nucleotide sequence of the full-length protein coding sequence of clone fs87_3 deposited under accession number ATCC 98371;

(f) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone fs87_3 deposited under accession number ATCC 98371;

25 (g) a polynucleotide comprising the nucleotide sequence of a mature protein coding sequence of clone fs87_3 deposited under accession number ATCC 98371;

(h) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone fs87_3 deposited under accession number ATCC 98371;

30 (i) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:79;

(j) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:79 having biological activity, the fragment comprising the amino acid sequence from amino acid 87 to amino acid 96 of SEQ ID NO:79;

35 (k) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(h) above;

(l) a polynucleotide which encodes a species homologue of the protein of (i) or (j) above ; and

(j) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:87 having biological activity, the fragment comprising the amino acid sequence from amino acid 126 to amino acid 135 of SEQ ID NO:87;

(k) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(h) above;

(l) a polynucleotide which encodes a species homologue of the protein of (i) or (j) above; and

(m) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(j).

10

115. A protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of SEQ ID NO:87;

(b) the amino acid sequence of SEQ ID NO:87 from amino acid 53 to amino acid 89;

(c) fragments of the amino acid sequence of SEQ ID NO:87 comprising the amino acid sequence from amino acid 126 to amino acid 135 of SEQ ID NO:87; and

(d) the amino acid sequence encoded by the cDNA insert of clone gx183_1 deposited under accession number ATCC 98371;

20 the protein being substantially free from other mammalian proteins.

116. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:86.

117. An isolated polynucleotide selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:99;

(b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:99 from nucleotide 170 to nucleotide 322;

(c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:99 from nucleotide 218 to nucleotide 322;

(d) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:99 from nucleotide 1814 to nucleotide 2355;

(e) a polynucleotide comprising the nucleotide sequence of the full-length protein coding sequence of clone bl209_10 deposited under accession number ATCC 98379;

(f) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone bl209_10 deposited under accession number ATCC 98379;

(g) a polynucleotide comprising the nucleotide sequence of a mature protein coding sequence of clone bl209_10 deposited under accession number ATCC 98379;

(h) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone bl209_10 deposited under accession number ATCC 98379;

(i) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:100;

5 (j) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:100 having biological activity, the fragment comprising the amino acid sequence from amino acid 20 to amino acid 29 of SEQ ID NO:100;

(k) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(h) above;

10 (l) a polynucleotide which encodes a species homologue of the protein of (i) or (j) above ; and

(m) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(j).

15 118. The polynucleotide of claim 117 wherein said polynucleotide is operably linked to at least one expression control sequence.

119. A host cell transformed with the polynucleotide of claim 118.

20 120. The host cell of claim 119, wherein said cell is a mammalian cell.

121. A process for producing a protein encoded by the polynucleotide of claim 118, which process comprises:

(a) growing a culture of the host cell of claim 119 in a suitable culture
25 medium; and

(b) purifying said protein from the culture.

122. A protein produced according to the process of claim 121.

30 123. The protein of claim 122 comprising a mature protein.

124. A protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of SEQ ID NO:100;

35 (b) fragments of the amino acid sequence of SEQ ID NO:100 comprising the amino acid sequence from amino acid 20 to amino acid 29 of SEQ ID NO:100; and

(c) the amino acid sequence encoded by the cDNA insert of clone bl209_10 deposited under accession number ATCC 98379;

the protein being substantially free from other mammalian proteins.

125. The protein of claim 124, wherein said protein comprises the amino acid sequence of SEQ ID NO:100.

5

126. A composition comprising the protein of claim 124 and a pharmaceutically acceptable carrier.

127. A method for preventing, treating or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of a composition of claim 126.

128. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:99.

15

129. An isolated polynucleotide selected from the group consisting of:

- (a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:101;
- (b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:101 from nucleotide 102 to nucleotide 1295;
- (c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:101 from nucleotide 162 to nucleotide 1295;
- (d) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:101 from nucleotide 804 to nucleotide 1184;
- (e) a polynucleotide comprising the nucleotide sequence of the full-length protein coding sequence of clone cr1162_25 deposited under accession number ATCC 25 98379;
- (f) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone cr1162_25 deposited under accession number ATCC 98379;
- (g) a polynucleotide comprising the nucleotide sequence of a mature protein coding sequence of clone cr1162_25 deposited under accession number ATCC 98379;
- (h) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone cr1162_25 deposited under accession number ATCC 98379;
- (i) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:102;
- (j) a polynucleotide encoding a protein comprising a fragment of the amino 35 acid sequence of SEQ ID NO:102 having biological activity, the fragment comprising the amino acid sequence from amino acid 194 to amino acid 203 of SEQ ID NO:102;
- (k) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(h) above;

(b) the amino acid sequence of SEQ ID NO:136 from amino acid 1 to amino acid 83;

(c) fragments of the amino acid sequence of SEQ ID NO:136 comprising the amino acid sequence from amino acid 141 to amino acid 150 of SEQ ID NO:136; and

5 (d) the amino acid sequence encoded by the cDNA insert of clone eq188_1 deposited under accession number ATCC 98408;

the protein being substantially free from other mammalian proteins.

170. An isolated gene corresponding to the cDNA sequence of SEQ ID
10 NO:135.

171.

An isolated polynucleotide selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:137;

(b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:137
15 from nucleotide 51 to nucleotide 1358;

(c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:137 from nucleotide 99 to nucleotide 1358;

(d) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:137 from nucleotide 249 to nucleotide 566;

20 (e) a polynucleotide comprising the nucleotide sequence of the full-length protein coding sequence of clone er80_1 deposited under accession number ATCC 98408;

(f) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone er80_1 deposited under accession number ATCC 98408;

25 (g) a polynucleotide comprising the nucleotide sequence of a mature protein coding sequence of clone er80_1 deposited under accession number ATCC 98408;

(h) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone er80_1 deposited under accession number ATCC 98408;

(i) a polynucleotide encoding a protein comprising the amino acid sequence
30 of SEQ ID NO:138;

(j) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:138 having biological activity, the fragment comprising the amino acid sequence from amino acid 213 to amino acid 222 of SEQ ID NO:138;

(k) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(h)
35 above;

(l) a polynucleotide which encodes a species homologue of the protein of (i) or (j) above ; and

(m) a polynucleotide that hybridizes under stringent conditions to any one of the polynucleotides specified in (a)-(j).

172. A protein comprising an amino acid sequence selected from the group
5 consisting of:

- (a) the amino acid sequence of SEQ ID NO:138;
 - (b) the amino acid sequence of SEQ ID NO:138 from amino acid 1 to amino acid 172;
 - (c) fragments of the amino acid sequence of SEQ ID NO:138 comprising the
10 amino acid sequence from amino acid 213 to amino acid 222 of SEQ ID NO:138; and
 - (d) the amino acid sequence encoded by the cDNA insert of clone er80_1 deposited under accession number ATCC 98408;
- the protein being substantially free from other mammalian proteins.

173. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:137.

174. An isolated polynucleotide selected from the group consisting of:
- (a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:139;
 - (b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:139
20 from nucleotide 571 to nucleotide 3306;
 - (c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:139 from nucleotide 726 to nucleotide 1320;
 - (d) a polynucleotide comprising the nucleotide sequence of the full-length
25 protein coding sequence of clone er418_5 deposited under accession number ATCC 98408;
 - (e) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone er418_5 deposited under accession number ATCC 98408;
 - (f) a polynucleotide comprising the nucleotide sequence of a mature protein
30 coding sequence of clone er418_5 deposited under accession number ATCC 98408;
 - (g) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone er418_5 deposited under accession number ATCC 98408;
 - (h) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:140;
 - (i) a polynucleotide encoding a protein comprising a fragment of the amino
35 acid sequence of SEQ ID NO:140 having biological activity, the fragment comprising the amino acid sequence from amino acid 450 to amino acid 459 of SEQ ID NO:140;

197. A host cell transformed with the polynucleotide of claim 196.

198. The host cell of claim 197, wherein said cell is a mammalian cell.

199. A process for producing a protein encoded by the polynucleotide of claim 196, which process comprises:

(a) growing a culture of the host cell of claim 197 in a suitable culture medium; and

(b) purifying said protein from the culture.

200. A protein produced according to the process of claim 199.

201. The protein of claim 200 comprising a mature protein.

202. A protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of SEQ ID NO:164;

(b) fragments of the amino acid sequence of SEQ ID NO:164 comprising the amino acid sequence from amino acid 129 to amino acid 138 of SEQ ID NO:164; and

(c) the amino acid sequence encoded by the cDNA insert of clone ci25_4 deposited under accession number ATCC 98415;

the protein being substantially free from other mammalian proteins.

203. The protein of claim 202, wherein said protein comprises the amino acid sequence of SEQ ID NO:164.

204. A composition comprising the protein of claim 202 and a pharmaceutically acceptable carrier.

205. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:163.

206. An isolated polynucleotide selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:165;

(b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:165 from nucleotide 283 to nucleotide 1158;

(c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:165 from nucleotide 1 to nucleotide 789;

(d) a polynucleotide comprising the nucleotide sequence of the full-length protein coding sequence of clone da228_6 deposited under accession number ATCC 98415;

(e) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone da228_6 deposited under accession number ATCC 98415;

(f) a polynucleotide comprising the nucleotide sequence of a mature protein coding sequence of clone da228_6 deposited under accession number ATCC 98415;

(g) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone da228_6 deposited under accession number ATCC 98415;

(h) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:166;

(i) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:166 having biological activity, the fragment comprising the amino acid sequence from amino acid 141 to amino acid 150 of SEQ ID NO:166;

(j) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(g) above;

(k) a polynucleotide which encodes a species homologue of the protein of (h) or (i) above; and

(l) a polynucleotide that hybridizes under stringent conditions to any one of the polynucleotides specified in (a)-(i).

207. A protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of SEQ ID NO:166;

(b) the amino acid sequence of SEQ ID NO:166 from amino acid 1 to amino acid 169;

(c) fragments of the amino acid sequence of SEQ ID NO:166 comprising the amino acid sequence from amino acid 141 to amino acid 150 of SEQ ID NO:166; and

(d) the amino acid sequence encoded by the cDNA insert of clone da228_6 deposited under accession number ATCC 98415;

the protein being substantially free from other mammalian proteins.

208. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:165.

209.

An isolated polynucleotide selected from the group consisting of:

(f) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone bv131_5 deposited under accession number ATCC 98444;

(g) a polynucleotide comprising the nucleotide sequence of a mature protein coding sequence of clone bv131_5 deposited under accession number ATCC 98444;

5 (h) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone bv131_5 deposited under accession number ATCC 98444;

(i) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:197;

(j) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:197 having biological activity, the fragment comprising
10 eight consecutive amino acids of SEQ ID NO:197;

(k) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(h) above;

(l) a polynucleotide which encodes a species homologue of the protein of (i)
15 or (j) above; and

(m) a polynucleotide that hybridizes under stringent conditions to any one of the polynucleotides specified in (a)-(j).

248. A protein comprising an amino acid sequence selected from the group
20 consisting of:

(a) the amino acid sequence of SEQ ID NO:197;

(b) the amino acid sequence of SEQ ID NO:197 from amino acid 430 to amino acid 564;

(c) fragments of the amino acid sequence of SEQ ID NO:197 comprising
25 eight consecutive amino acids of SEQ ID NO:197; and

(d) the amino acid sequence encoded by the cDNA insert of clone bv131_5 deposited under accession number ATCC 98444;
the protein being substantially free from other mammalian proteins.

30 249. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:196.

250

An isolated polynucleotide selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:198;

35 (b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:198 from nucleotide 67 to nucleotide 690;

(c) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:198 from nucleotide 1 to nucleotide 576;

(d) a polynucleotide comprising the nucleotide sequence of the full-length protein coding sequence of clone bv227_1 deposited under accession number ATCC 98444;

(e) a polynucleotide encoding the full-length protein encoded by the cDNA insert of clone bv227_1 deposited under accession number ATCC 98444;

(f) a polynucleotide comprising the nucleotide sequence of a mature protein coding sequence of clone bv227_1 deposited under accession number ATCC 98444;

(g) a polynucleotide encoding a mature protein encoded by the cDNA insert of clone bv227_1 deposited under accession number ATCC 98444;

(h) a polynucleotide encoding a protein comprising the amino acid sequence of SEQ ID NO:199;

(i) a polynucleotide encoding a protein comprising a fragment of the amino acid sequence of SEQ ID NO:199 having biological activity, the fragment comprising eight consecutive amino acids of SEQ ID NO:199;

(j) a polynucleotide which is an allelic variant of a polynucleotide of (a)-(g) above;

(k) a polynucleotide which encodes a species homologue of the protein of (h) or (i) above; and

(l) a polynucleotide that hybridizes under stringent conditions to any one of the polynucleotides specified in (a)-(i).

251. A protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of SEQ ID NO:199;

(b) the amino acid sequence of SEQ ID NO:199 from amino acid 1 to amino acid 170;

(c) fragments of the amino acid sequence of SEQ ID NO:199 comprising eight consecutive amino acids of SEQ ID NO:199; and

(d) the amino acid sequence encoded by the cDNA insert of clone bv227_1 deposited under accession number ATCC 98444;
the protein being substantially free from other mammalian proteins.

252. An isolated gene corresponding to the cDNA sequence of SEQ ID NO:198.

35

253. An isolated polynucleotide selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:200;